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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,510	12/05/2003	William Banning Vail, III	WEAT/0527.P1	1981
7590	11/29/2005		EXAMINER	
William B. Patterson MOSER, PATTERSON & SHERIDAN, L.L.P. Suite 1500 3040 Post Oak Blvd Houston, TX 77056			TSAY, FRANK	
			ART UNIT	PAPER NUMBER
			3672	
DATE MAILED: 11/29/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/729,510

Applicant(s)

VAIL,, WILLIAM BANNING

Examiner

Frank S. Tsay

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1 and 2 is/are allowed.
- 6) ☒ Claim(s) 3 and 6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 December 2003 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/14/04-4/15/05
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knudson (US 3,945,444) in view of Jones et al (US 5,323,858).

Knudson teaches casing drilling using split bit, which comprises all of the claimed structure including an outer tubular means 16 which can be comprised of standard drill string (col. 7, lines 19-23) and/or well casings (col. 2, lines 37-45), a rotatable drill assembly 46, 48 having mud passages 58 which is selectively connected at the lower end of drill string (see Fig. 1, abstract, and col. 4, lines 17+). The inner drill bit 48 is selectively removable with standard wireline operation leaving the outer tubular means or casing in the wellbore for well completion (Col. 2, lines 40-45, and col. 7, lines 7. Knudson differs from the claimed invention in that, there is an apparent lack of disclosure regarding the pump-down or latching float collar and the use of wiper plugs for cementing operation. In this regard, Jones et al teaches a method of casing cementing using pump-down one-way valve wherein a bottom plug 20 is forced down through the casing 16 by cement slurry 24 which in turn is pushed down by the top plug 22. When the bottom plug reaches the end of the casing string the latch 30 slips over and is coupled to the lip 18 of the casing 19 (Fig. 2). The increased pressure of the

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cement slurry rupture the diaphragm 34 so that cement slurry pumped out of the bottom of the casing and up around the annulus between the casing and the wellbore until the cement fills the desired level in the annulus. It would therefore have been obvious to one of the ordinary skill in the art at the time the invention was made to have modified Knudson's drill string by pumping downhole a latching one-way valve similar to that of Jones et al after the removal of inner drill bit 48 so that a cement slurry can be pumped into the annulus for securing the casing downhole. The language of "one-pass" fails to distinguish from Knudson, in that Knudson in fact teaches the art of casing drilling which makes the drilling and completion operations in one-pass. The claimed at least one mud passage of the drill bit is also anticipated by the fact that in Knudson, the outer drill bit 46 remains in the borehole during the well completion, the central passage will certainly allow the cement flow into the wellbore annulus. The language "a rotary drill bit possessing directional drilling means" fails to constitute a patentable structural distinction over the drilling assembly of Knudson, because a drill bit by itself can not control the direction of a drilling trajectory.

Allowable Subject Matter

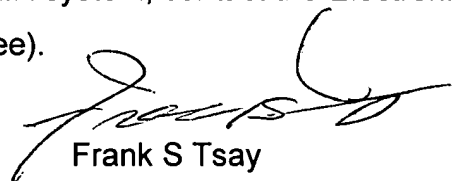
Claims 1 and 2 are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank S. Tsay whose telephone number is (571) 272-7038. The examiner can normally be reached on Monday thru Friday, 7:30am-5:00 pm, 2nd Friday off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell can be reached on (571)272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Frank S Tsay

Primary Examiner

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11/16/05